

DETAILED ACTION

Response to Amendment

1. Applicants' amendment filed on November 10, 2009 has been entered. No claims have been amended. No claims have been canceled. No claims have been added. Claims 1-2, 4-16, 18-25, 27-34, and 36-38 are still pending in this application, with claims 1, 9, 23, 24, and 31 being independent.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1-2, 4-16, 18-25, 27-34, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borst et al. (U.S. Patent Number 6,366,668 hereinafter "Borst") in view of Shtivelman (U.S. Publication Number 2002/0054670 A1) in view of Foladare et al. (U.S. Patent Number 5,978,671 hereinafter "Foladare").

Regarding claims 1, 9, 23, 24 and 31, Borst teaches a method and a call routing system for use in directory assistance, said routing system (Figs. 1-11) comprising:

a primary call routing device (Fig. 1, Fig. 4, 110 Non-Central/Primary Automatic Call Distribution (ACD)) at a first call center (Fig. 9, 110 Non-Central/Primary ACD, 900 Sub-network/Sub-system) in the directory assistance system configured to receive directory assistance calls from callers and to determine (Fig. 1, 103 Call Allocator, 102,

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Alternate Destination Call Redirection (ADCR)), for each of said calls, whether said calls will be handled by said first call center, or by a second call center (Fig. 9, 102 ADCR, 900-901 Sub-networks/Sub-systems) in said directory assistance system among a plurality of call centers (Fig. 9, 900-901 Sub-networks/Sub-systems) (Fig. 1, 110 Non-Central/Primary ACD, Fig. 2, column 3 lines 1-11, and lines 27-28, i.e., non-central or primary ACD 110, Fig. 4, Fig. 9, column 4, lines 29-45, i.e., a plurality of sub-networks/sub-systems each with its own ACD systems, wherein a sub-network/sub-system reads on a call center and an ACD reads on a call routing device/router);

a secondary router (Fig. 1, Fig. 4, 111 Central/Backup ACD) at said first call center (Fig. 9, 111 Central/Backup ACD, 900 Sub-network/Sub-system) in said directory assistance system, said secondary router (Fig. 1, Fig. 4, 111 Central/Backup ACD) configured to initially route said calls within said first call center to said primary call routing device (Fig. 1, Fig. 4, 110 Non-Central/Primary ACD), and wherein if said primary call routing device is off-line (Fig. 3, step 308 Return "Busy" to Routing Node), said secondary call router (Fig. 1, Fig. 4, 111 Central/Backup ACD) employs a default call distribution logic to route said calls among said first call center and said plurality of call centers (Fig. 9, 900-901 Sub-networks/Sub-systems) in said directory assistance systems (Fig. 1, Figs. 3-4, Fig. 9, column 3, lines 12-57).

Borst further teaches a frequent caller routing module (Fig. 1, 103 Call Allocator, 102, Alternate Destination Call Redirection (ADCR)), attempts to designate a desired predefined percentage of calls of the total numbers of calls to said directory assistance

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system (Figs. 1-11, Abstract, column 1 lines 53-54, and column 5 lines 25-30, i.e., distributes calls to a plurality of ACD systems on a fixed percentage). However, Borst might not clearly disclose a frequent caller database, configured to store information corresponding to frequent callers, and a desired predefined percentage of calls as priority calls.

In the same field of endeavor, Shtivelman teaches to determine, for each of said calls, whether said calls will be handled by said first directory assistance system (see Shtivelman - Fig. 1, 15 Call Center), or by a second directory assistance system (See Shtivelman - Fig. 1, 13 Call Center) (see Shtivelman - Fig.1, paragraph hereinafter "par" [0031] lines 3-8, i.e., calls are routed according to programmable rules), a frequent caller routing module (see Shtivelman - Fig. 1, 21 IVR, Fig. 2, 113 CTI Processor, 115 IVR) coupled to said primary call routing device (see Shtivelman - Fig. 147 Processor, 51 Switch, Fig. 2, 103 Switching Apparatus) and a desired predefined percentage of calls as priority calls (see Shtivelman - Figs. 1-3, Fig. 3, step 87 Determine if caller has priority, par [0046], and par [0053], i.e., determine if caller has priority reads on frequent caller routing, and Fig. 1, 15, 16, 19, 21, par [0038], i.e., selection of a percentage of callers for diversion, and par [0040]). Shtivelman further teaches that there is a need for diverting calls and routed by priority (see Shtivelman - par [0013]).

And, Foladare teaches a method and a system to provide frequent call routing by detecting repeat or frequent caller and accessing/updating a frequent caller database (See Foladare – Figs. 1-2, column 2, lines 27-48). Foladare further teaches that there is

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an advantage to use speech recognition technique (e.g., IVR) to obtain caller information for querying the caller database (see Foladare - column 2, lines 58-66).

Therefore, it would have been obvious to a person of ordinary in the art at the time of the invention was made to incorporate a frequent caller module, a frequent caller database, and a percentage of calls as priority calls as taught by Shtivelman and Foladare above, into the method and system of Borst in order to enhance the call routing services in a plurality of call centers. Since, Borst teaches the system and method for supporting multiple call centers, and thus adding the features described above as taught by Shtivelman and Foladare is to apply a known technique to a known device ready for improvement to yield predictable results (see KSR – MPEP 2143).

One having ordinary skill in the art would have been motivated to make such a modification to divert the calls, routed by priority, and uses IVR to obtain information from the database, as per the teachings of Shtivelman and Foladare.

Regarding claims 2 and 25, Borst teaches a method and a call routing system, wherein said secondary router is configured to determine the online/off-line status of said primary call routing device (Figs. 1-11, column 3, lines 46-55, i.e., a rejection signal (e.g., a “busy” signal) triggers the Alternate Destination Call Redirection (ADCR) feature).

Regarding claims 4 and 27-29, Borst a transfer router (Fig. 1, Fig. 9, 102 ADCR, 900-901 Sub-networks/Sub-systems), said transfer router configured to transfer calls

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between said first call center (Fig. 1, Fig. 9, 900) and a second call center (Fig. 1, Fig. 9, 901) in said directory assistance system via a Wide Area Network (WAN), the Internet, and/or a packet switched network (Fig. 1, Fig. 9, 100 PSTN, column 2, lines 54-60, i.e., interconnected (networked) via the public switched telephone network (PSTN), the Internet, or some other communications network, and column 4, lines 29-40).

Regarding claims 5-6 and 30, Borst discloses everything claimed as applied above (see claims 1, 4, and 24 above). Shtivelman teaches a method and a call routing system, wherein said primary call routing device routes a portion of said plurality of said incoming calls to said second call center when said first call center in said directory assistance system is experiencing high call volume and/or offline (Figs 1-2, par [0048], i.e., calls are diverted when call volume is exceeded a preset threshold "offline", and par [0050]).

Regarding claims 7-8, Borst discloses everything claimed as applied above (see claims 1 and 4 above). And, Shtivelman teaches a call routing system, further comprising an automatic call distribution call center, configured to receive a portion of said plurality of calls from said secondary router and distribute them among a plurality of operator terminals disposed within said first call center in said directory assistance system, and where in said second call center in said directory assistance system further comprises a second automatic call distribution call center configured to receive a portion of said plurality of calls from said secondary router and distribute them among a plurality

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of operator terminals disposed within said second call center (Fig. 1, par [0050], i.e., call center 13, call center 15 and other call centers may only have a certain percentage of incoming calls).

Regarding claims 10-11, Borst discloses everything claimed as applied above (see claim 9 above). Shtivelman teaches the call routing system (Figs. 1-3), wherein said frequent call routing module is located within said primary call routing device, and wherein said frequent call routing module is a software application within said primary call routing device (Figs. 1-3, par [0059] lines 5-8).

Regarding claims 12-16 and 32-34, Borst discloses everything claimed as applied above (see claims 9 and 31 above). Shtivelman teaches the call routing system (Fig. 1), wherein said frequent call routing module is configured to convey the priority call routing decision to said primary call routing device to perform routing of said call, wherein said information corresponding to frequent callers includes a listing of frequent callers to said directory assistance system and the corresponding frequency of their calls (Figs. 1-3, par [0013], and par [0031] lines 9-14), wherein said frequency of calls made to said directory assistance system are stored as calls per month, wherein said information corresponding to frequent callers includes a listing of frequent callers to said directory assistance system are stored in one of a plurality of designated call frequency groups, and wherein said frequent caller routing module makes priority routing decisions for incoming calls based on said call frequency group assigned to said caller, in the

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caller database (Figs. 1-2, par [0034], and par [0040], i.e., call frequency groups such as emergency workers, certain authorities).

And Foladare teaches a frequent caller database (see Foladare – Figs. 1-2, column 2, lines 27-48) and store the frequency of calls made (see Foladare – Figs. 1-2, column 6, lines 41-44, i.e., number of times a caller has called is maintained in the database).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide Borst with the above teachings from Shtivelman and Foladare.

Regarding claims 18-19 and 36, Borst discloses everything claimed as applied above (see claims 9 and 31 above). Borst further teaches a frequent caller routing module (Fig. 1, 103 Call Allocator, 102, Alternate Destination Call Redirection (ADCR)), attempts to designate a desired predefined percentage of calls of the total numbers of calls to said directory assistance system (Figs. 1-11, Abstract, column 1 lines 53-54, and column 5 lines 25-30, i.e., distributes calls to a plurality of ACD systems on a fixed percentage). Shtivelman teaches the call routing system, wherein said desired percentage of calls is 3-5% of the total call volume to said directory assistance, and wherein said frequent caller routing module dynamically adjusts priority routing decisions for incoming calls by changing said call frequency groups that are designated for priority routing so as to maintain said predefined percentage of calls of the total numbers of calls to said directory assistance system, routed as priority calls (Fig. 1, 15,

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16, 19, 21, par [0038], i.e., selection of a percentage of callers for diversion, and par [0040]).

Regarding claims 20-22 and 37-38, Borst discloses everything claimed as applied above (see claims 9 and 31 above). Shtivelman teaches the call routing system, wherein said priority call routing includes expediting the handling of said call within said directory assistance system (Fig. 1, 16, 19, 21, par [0042] lines 5-6, i.e., callers have correct code/password would be immediately routed), wherein said priority call routing includes routing said call within said directory assistance system to a particular operator terminal among a plurality of operator terminals, and wherein said particular operator terminal is an increased skill operator (par [0042] lines 12-15, i.e., routed to appropriate services).

Response to Arguments

4. Applicants' arguments with respect to claims 1-2, 4-16, 18-25, 27-34, and 36-38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI N. NGUYEN whose telephone number is (571)270-3141. The examiner can normally be reached on Monday - Thursday 6:30AM - 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. N. N./
Examiner, Art Unit 2614
04/23/2010

/Ahmad F Matar/
Supervisory Patent Examiner, Art Unit 2614